OLA POLICE ACADEMY

Health, Fitness and Wellness

PURPOSE

- A peace officer must be depended upon to perform his/her duty in serving and protecting the community he/she serves.
- The officer's health, fitness and overall wellness are crucial in providing this service.

PHYSICAL ACTIVITY AND EXERCISE FOR HEALTH AND FITNESS

- Physical activity levels have declined
- *Healthy People 2010:*
  - More than 55% of U.S. adults do not engage in recommended amounts of activity
  - 25% are not active at all

- Fifty-five percent of American adults are now considered to be overweight.
- Approximately (1) out of (4) are profiled as obese.
- Obesity means: a person with excessive body fat,(males with more than 20% fat and females more than 30% of fat over their total body weight).
- Being overweight may enhance other chronic health risks, such as:
  - Back Problems
  - High Cholesterol
  - High Blood Pressure
  - Diabetes
  - Heart Disease
  - Cancer

- 25% percent of American adults smoke cigarettes. The numbers for law enforcement officers were significantly higher.
- Alcohol use among law enforcement officers is also significantly on the rise.
- How does this relate back to law enforcement officers and their agencies.
- These statistics were for an overall health study of the American population.

- For law enforcement departments the studies are a significant implication in terms of:
  a) Officer health & safety
  b) Public safety
  c) Officer productivity, officers effectiveness on the job
  d) Officer retention
  e) Officer injury rate: back, knees, shoulders.
  f) Limited duty or light duty
  g) Workers comp. / insurance claims
  h) Public relations and image

HEALTH & WELLNESS

- Health and Wellness is defined as a combination of physical fitness and good nutritional habits

HEALTH IS :

"A STATE OF COMPLETE PHYSICAL, MENTAL AND SOCIAL WELL BEING, AND NOT MERELY THE ABSENCE OF DISEASE OR INFIRMITY."

Health and Wellness is more than just working out on occasion. It's what you eat and how you live.

HEALTH AND WELLNESS

- Physical Fitness
- Nutrition
- Sleep
- Stress

What is Fitness ?

TASK : What is Fitness?

❖Fitness isn't just about being able to do sit-ups and run fast.

FITNESS IS :

"THE ABILITY TO MEET THE DEMANDS OF THE ENVIROMENT"

❖Your environment is everything around you.

❖It includes home, work, family and friends – All of them make demands on you.

❖Meeting the demands means carrying out tasks and activities.

What is Fitness ?

- FITNESS is a blend of a number of different physical qualities.
- Physical Fitness is only one area of TOTAL fitness.
- Fitness is constantly changing and is influenced by many factors.
- WEAKNESS in one fitness area may keep you from improving in other areas.

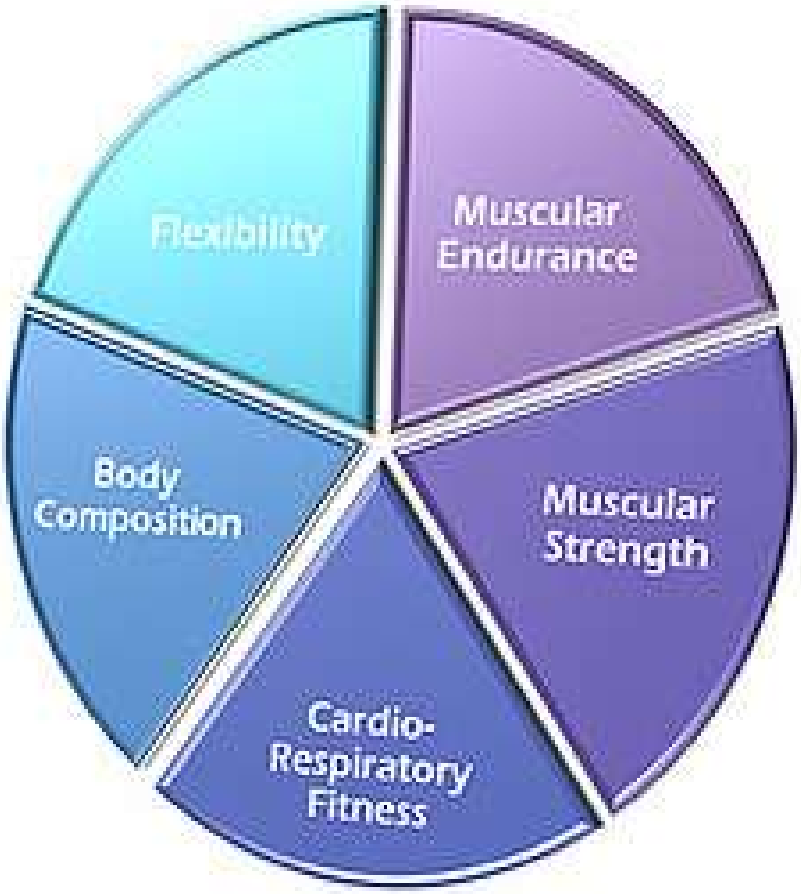
Physical fitness is made up of 11 different parts or components : five are Health-related and six are Skill related.

- An effective fitness program includes all 5 components of physical fitness.
- While it's acceptable to emphasize exercises for one or more weaker components, be sure not to neglect the others.
- Also, any strenuous exercise in one muscle group or fitness component should be followed by 24 to 48 hours of rest for that area, to allow it to recover.

Components of Fitness

Health-Related Fitness	Skill-Related Fitness
o Cardiovascular /Aerobic Fitness,	o Agility
o Strength	o Balance
o Muscular Endurance	o Co-ordination
o Flexibility	o Speed
o Body Composition	o Reaction Time
	o Power

Components of Fitness



CARDIOVASCULAR ENDURANCE

- **Cardiovascular endurance refers to the ability of your heart and lungs to work together to fuel your body with oxygen. The Cooper Run is most often used to test cardiovascular endurance. Aerobic conditioning, like jogging, swimming and cycling, can help improve cardiovascular endurance.**

MUSCLE STRENGTH

- **Muscle strength refers to the amount of force a muscle can exert, in a single effort. Exercises like the bench press, leg press or bicep curl might be used to measure muscle strength.**

STRENGTH

Can be defined as :

THE ABILITY OF A MUSCLE OR MUSCLE GROUP TO APPLY FORCE AND OVERCOME RESISTANCE

There are 3 different types of Strength

Static or Isometric – When FORCE is applied to a NON-MOVING OBJECT.

Dynamic or Isotonic – Which involves the MOVEMENT of the muscles / joints etc. against a MOVING object.

Explosive – Which involves all the athlete's strength going into a QUICK MOVEMENT.

MUSCLE ENDURANCE

- **Muscle endurance refers to the ability of a muscle to perform a continuous effort without fatiguing. Cycling, step machines and sit up tests are often used to measure muscular endurance.**

SKILL-RELATED COMPONENTS OF FITNESS

- Speed
- Power
- Agility
- Balance
- Coordination
- Reaction time

Task : Match the Components of Fitness with their definitions.

Cardiovascular Fitness	Refers to the range of movement at a joint.
Co-ordination	Refers to the proportions of lean body mass and body fat.
Muscular Endurance	The mixing of different abilities into the smooth execution of task.
Speed	The ability to maintain the equilibrium of the body.
Balance	The ability to produce strength performances quickly.
Agility	The ability to respond to a given stimulus.
Flexibility/Suppleness	The ability to change direction accurately and quickly.
Power	The quickness with which one is able to move the body from one point to another.
Reaction Time	The ability of a muscle or muscle group to apply force and overcome resistance.
Strength	Refers to the capacity of the muscle or group of muscles to work continuously.
Body Composition	The ability to exercise the whole body for prolonged periods of time.

FLEXIBILITY

"REFERS TO THE RANGE OF MOVEMENT AT THE JOINT."

Can be improved by STRETCHING the muscles and tendons and by extending the ligaments and supporting tissues BEYOND THEIR NORMAL RANGE OF MOVEMENT.

There are 3 different types of stretching

Static Stretching - EXTENDING a limb beyond its normal range. The position is held for at least 10 seconds.

Active/Dynamic Stretching – Extending a joint beyond its normal limit, and repeats this RHYTHMICALLY over a period of 20 seconds.

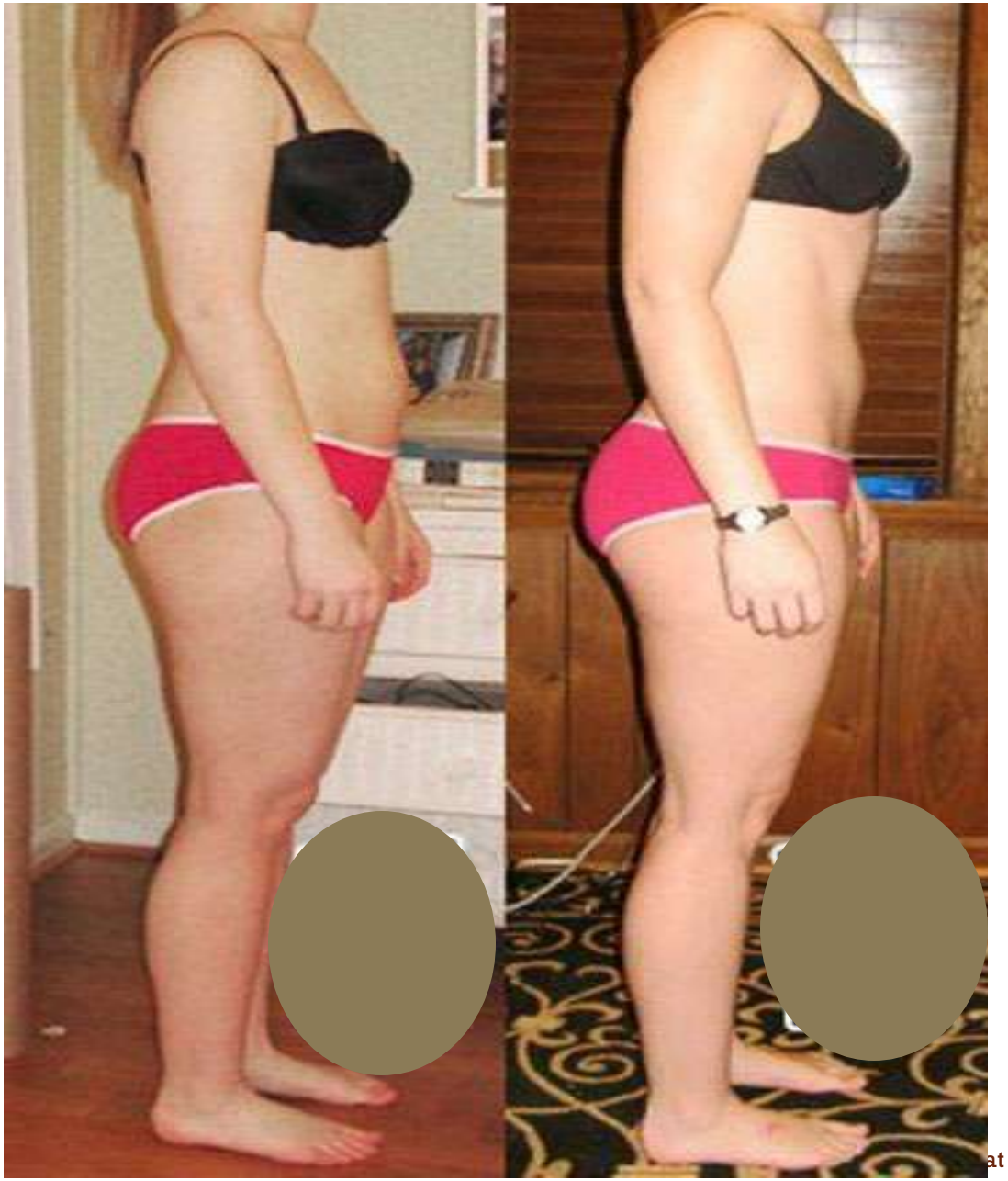
Passive Stretching – Joint flexibility is improved by EXTERNAL FORCE caused by partners or coaches who move the limb to its end position and keep it there for a few seconds.

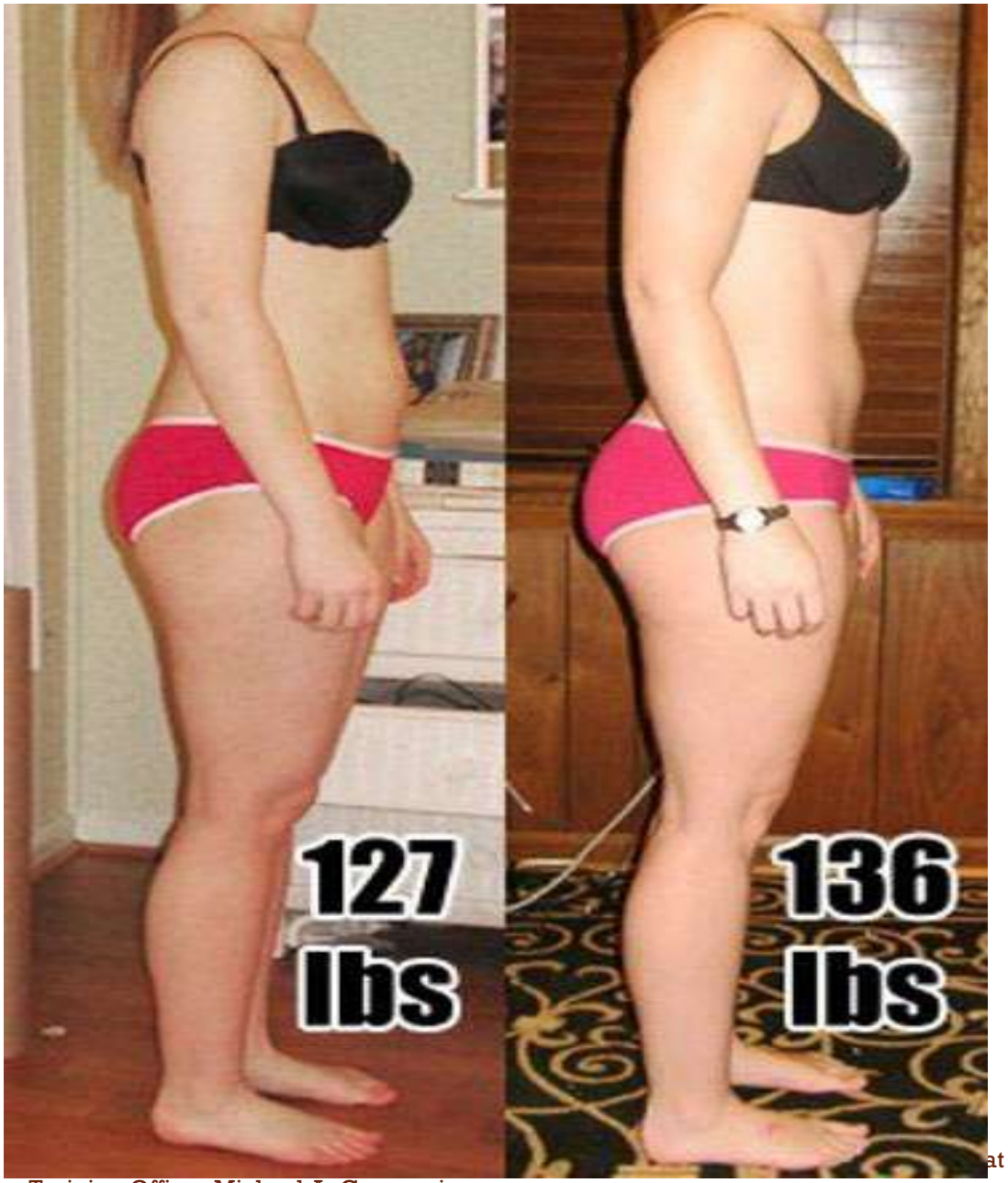
BODY COMPOSTION

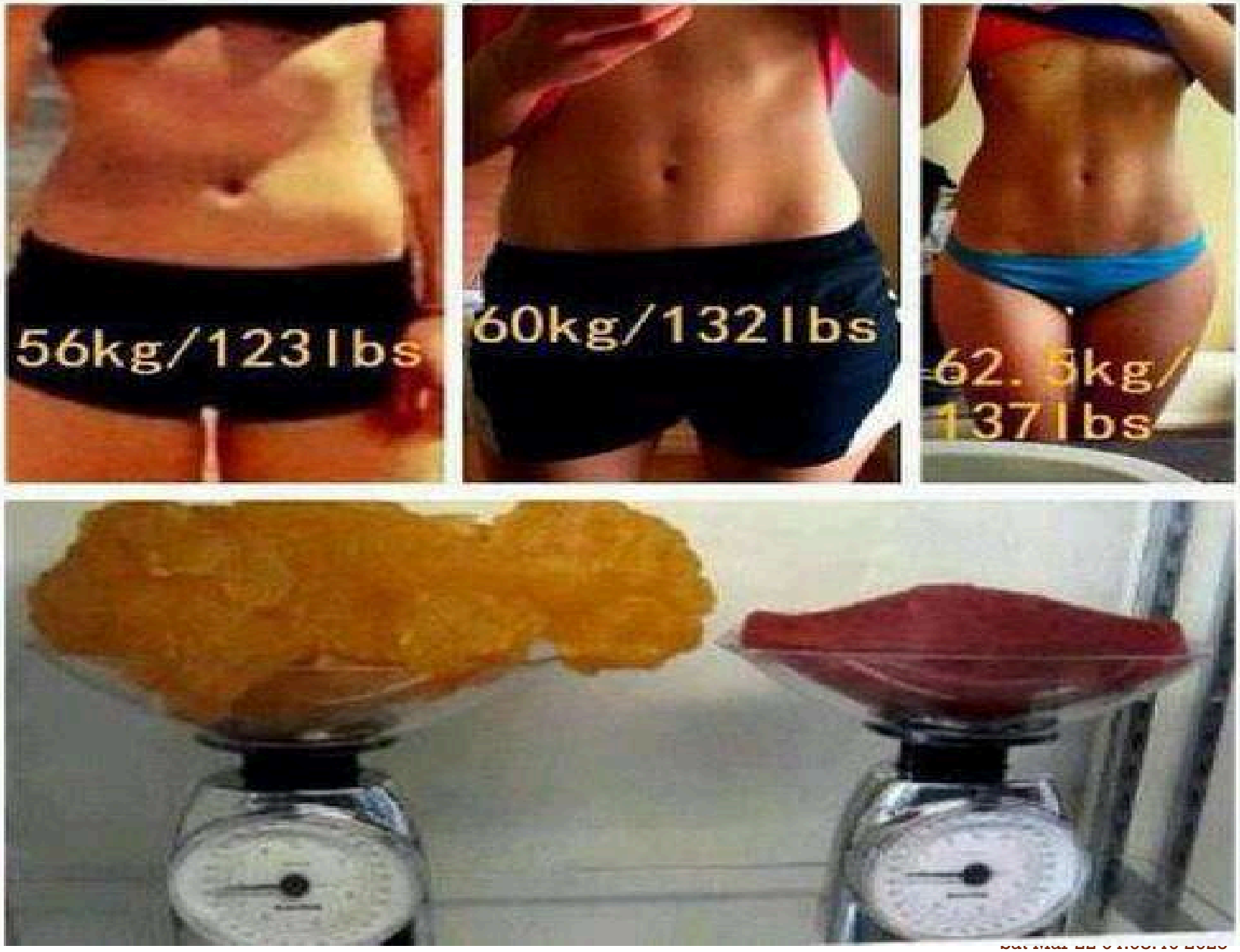
"REFERS TO THE PROPORTIONS OF LEAN BODY MASS AND BODY FAT"

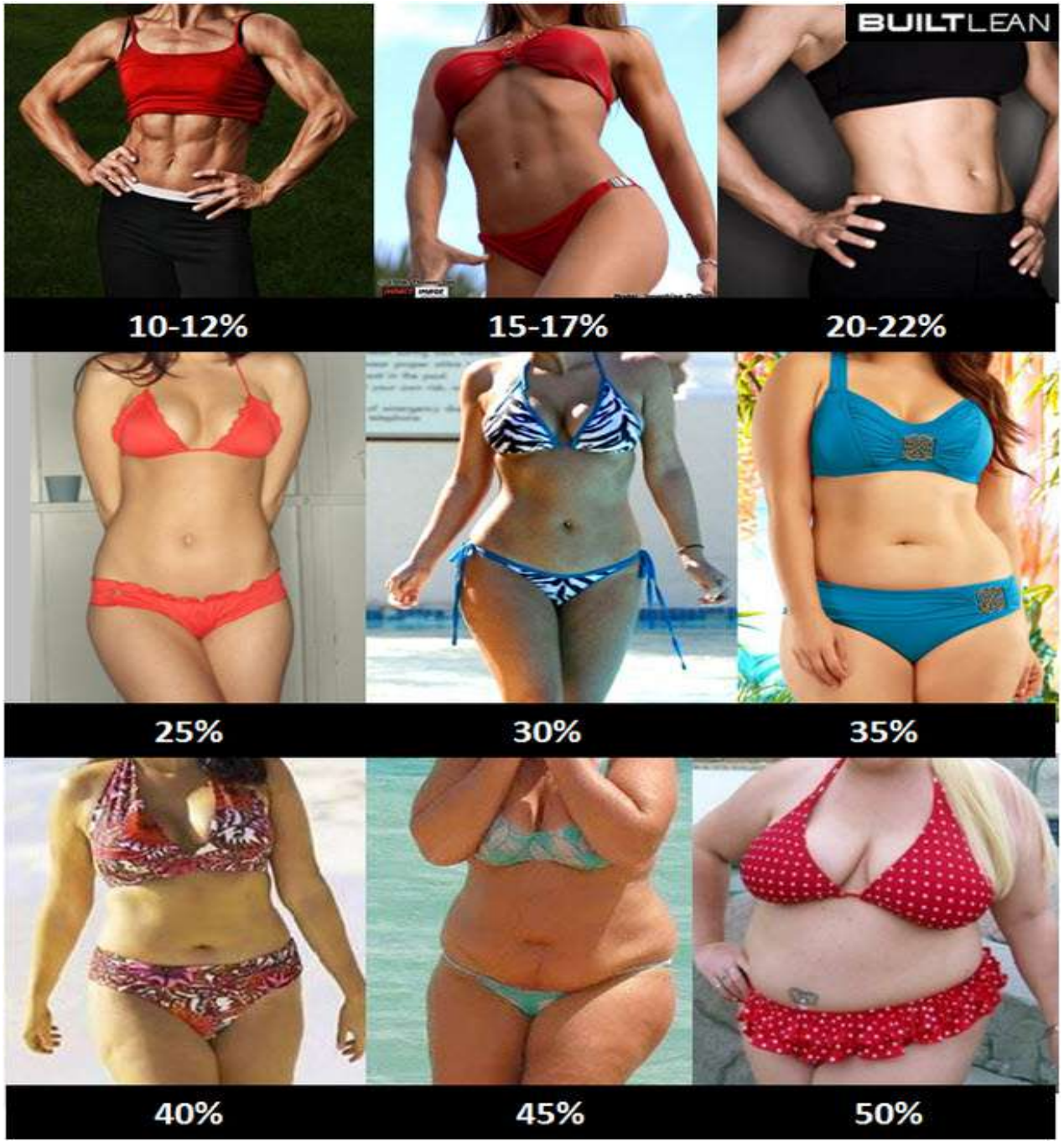
Guess who playing defense in 1988?


155 lbs
155 lbs




127
lbs
136
lbs


56kg/123lbs
60kg/132lbs
62.5kg/
137lbs



WOMEN

	Women	Men
Essential fat	10-12%	2-4%
Athletes	14-20%	6-13%
Fitness	21-24%	14-17%
Acceptable	25-31%	18-25%
Obese	32% or more	26% or more

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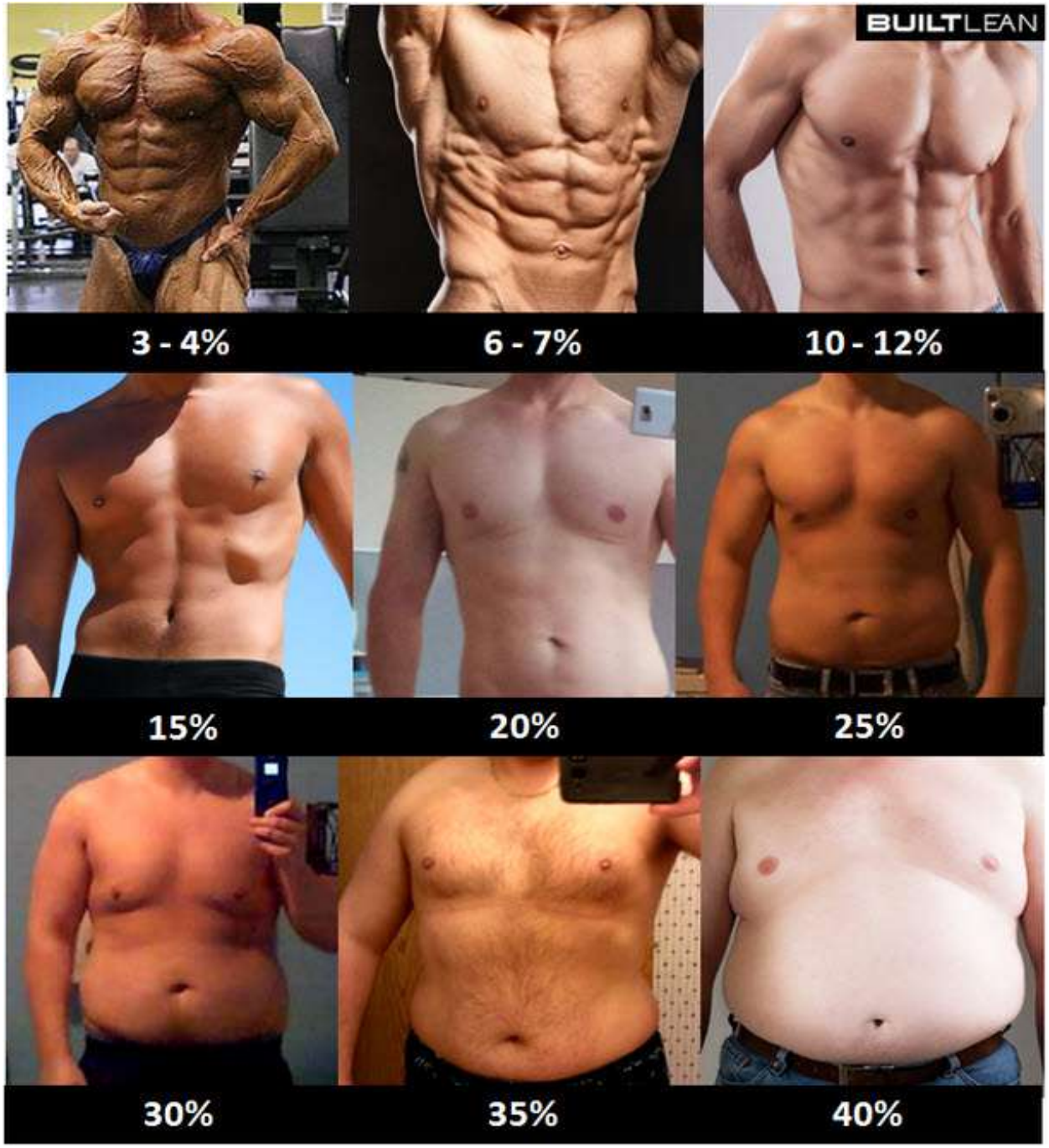

MEN

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Essential fat	10-12%	2-4%
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Obese	32% or more	26% or more

Take home message

– weight resistant exercise

+

eat real food=

Healthy Body Composition

BENEFITS OF REGULAR AEROBIC EXERCISE

Activity and aerobic exercise can improve one's physical health in many ways. Most of the health benefits of physical activity are gained with only moderate levels of activity.

A PROPER AEROBIC EXERCISE PROGRAM WILL:

- increase the efficiency of the heart by making it able to pump more blood (increased stroke volume) with fewer beats (decreased heart rate) resulting in increased oxygen availability to the heart
- increase the ability of muscles to pick up, carry and use oxygen efficiently
- decrease the oxygen requirements of the heart during rest and activity
- decrease resting blood pressure such that blood pressure medications may be decreased
- increase the ability to exercise at higher workloads for longer periods of time, before being limited by fatigue, shortness of breath or chest pain
- decrease triglyceride levels in the blood and increase the HDL-Cholesterol (good cholesterol) levels, thus making it harder for fats to collect inside artery walls

- decrease blood sugar and triglyceride levels in the blood such that the types and amounts of blood sugar lowering drugs may be decreased or changed for those individuals with diabetes
- decrease the blood's ability to clot and stick to blood vessel walls which decreases the risk for blood clots to block small arteries
- increase one's ability to move, thus making it easier to perform daily activities
- decrease body fat and increase muscle mass
- increase metabolism
- increase tolerance to stress by improving one's outlook on life
- decrease hostility
- increase control of stress hormones
- increase one's self-confidence and general sense of well-being
- decrease risk for osteoporosis

AEROBIC EXERCISES

Aerobic exercises promote cardio-vascular conditioning and endurance.

- Cross country skiing, swimming, jogging or running, outdoor cycling, walking, roller skating, dancing, handball, racquetball, squash and basketball.

ANAEROBIC EXERCISES

Anaerobic exercise require small amounts of energy for short durations.

- Sprints, pushing, or pulling objects for a short distance, calisthenics and weight training.

Activities in which you move only intermittently or that are "stop and go", such as golf, basketball, baseball or bowling, tend to activate the anaerobic system and thus do not help to achieve as much of a training effect.

F.I.T.T Principle

Frequency

Intensity

Time

Type

F - FREQUENCY (HOW OFTEN TO EXERCISE)

- This will vary from several times per day to 3-6 times per week depending on the exercise intensity and time.

I - INTENSITY (HOW HARD TO EXERCISE)

- 45%-80% of an individual's maximal functional capacity determined by a treadmill test.

LIFESTYLE PHYSICAL ACTIVITY

- For health promotion:
  - Expend about 150 calories—equivalent to 30 minutes of brisk walking —on most days
- For health promotion **and** weight management:
  - Engage in 60 or more daily minutes of activity to prevent unhealthy weight gain
  - Engage in 60-90 daily minutes of activity to sustain weight loss

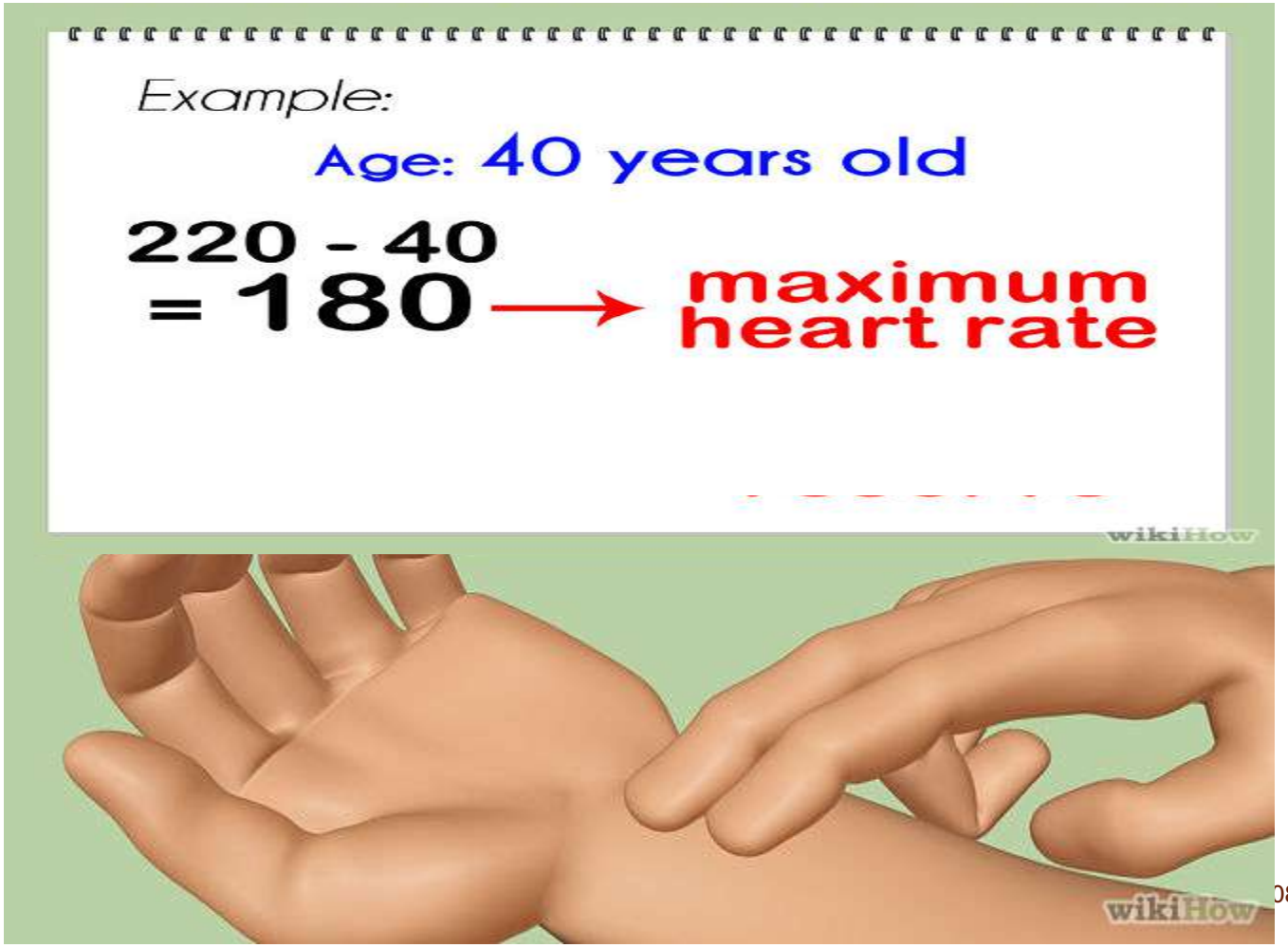

EXERCISE ZONES
AGE
20 25 30 35 40 45 50 55 65 70
BEATS PER MINUTE
100% 200 195 190 185 180 175 170 165 155 150
VO2 Max (Maximum effort)
90% 180 176 171 167 162 158 153 149 140 135
Anaerobic (Hardcore training)
80% 160 156 152 148 144 140 136 132 124 120
Aerobic (Cardio training / Endurance)
70% 140 137 133 130 126 123 119 116 109 105
Weight control (Fitness / Fat burn)
60% 120 117 114 111 108 105 102 99 93 90
Moderate activity (Maintenance / Warm up)
50% 100 98 95 93 90 88 85 83 78 75

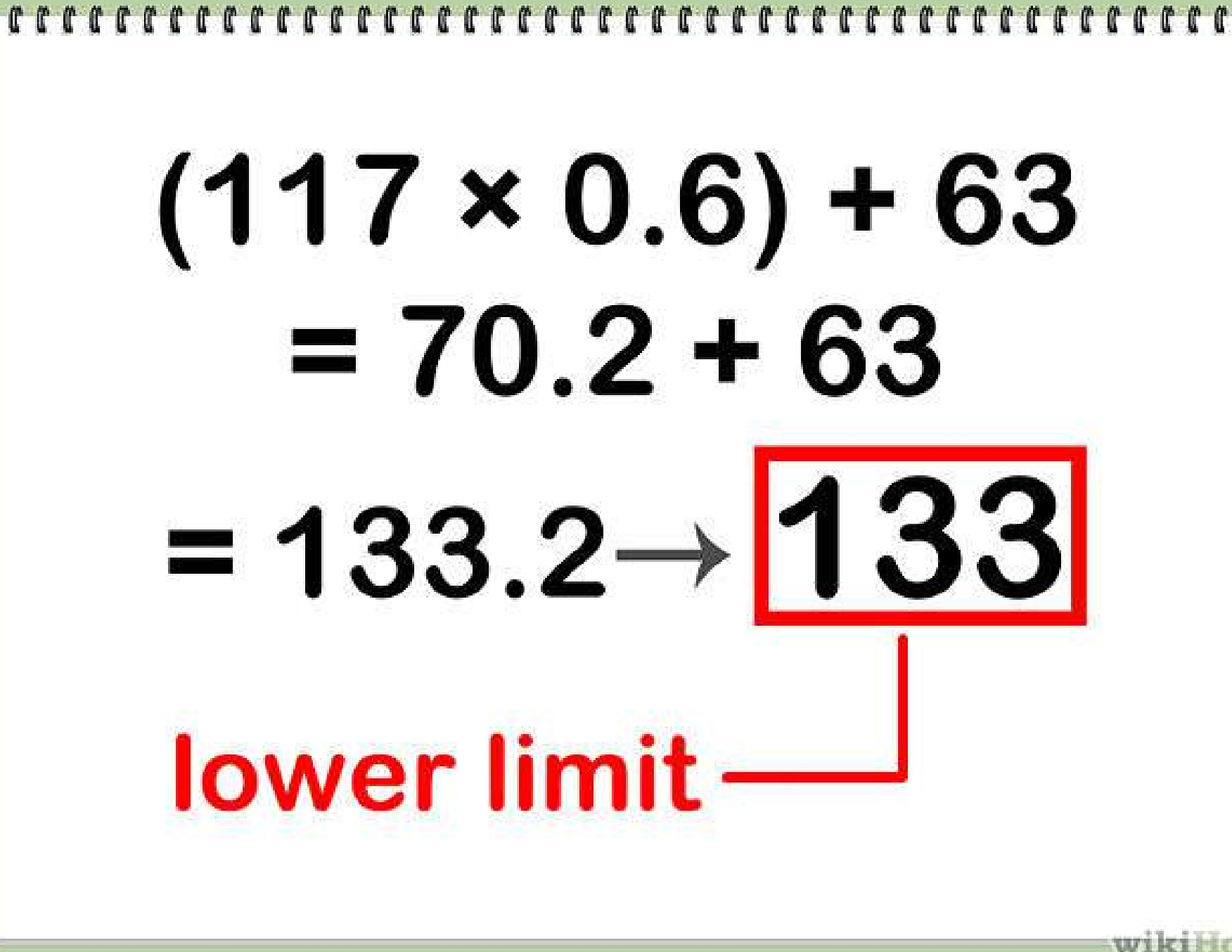
HOW TO CALCULATE YOUR TARGET HEART RATE

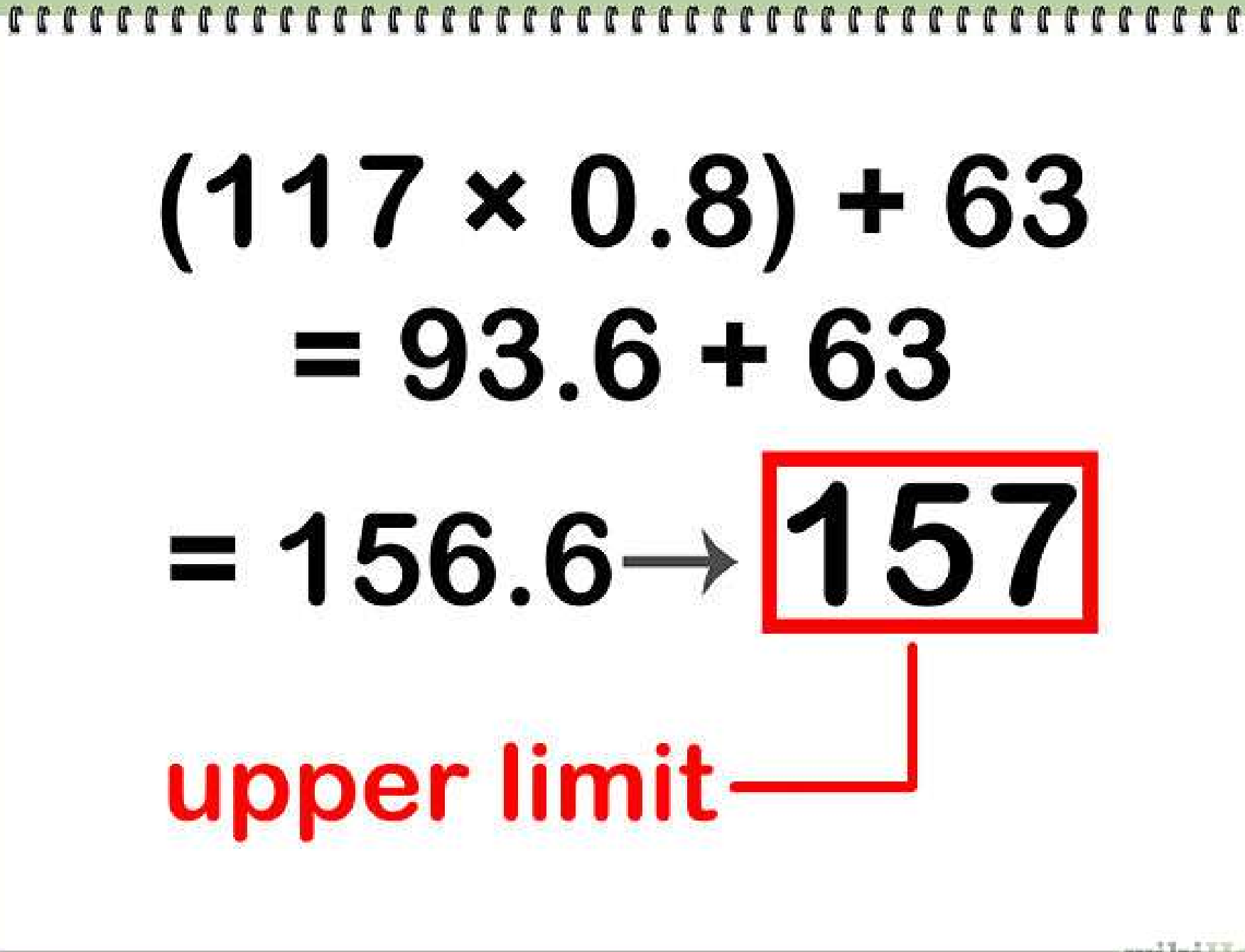
- You maximize the benefits of cardiovascular activity when you exercise in the zone of your target heart rate (THR).

- In general terms, your THR is 60-80% of your maximum heart rate.

HOW TO CALCULATE YOUR TARGET HEART RATE

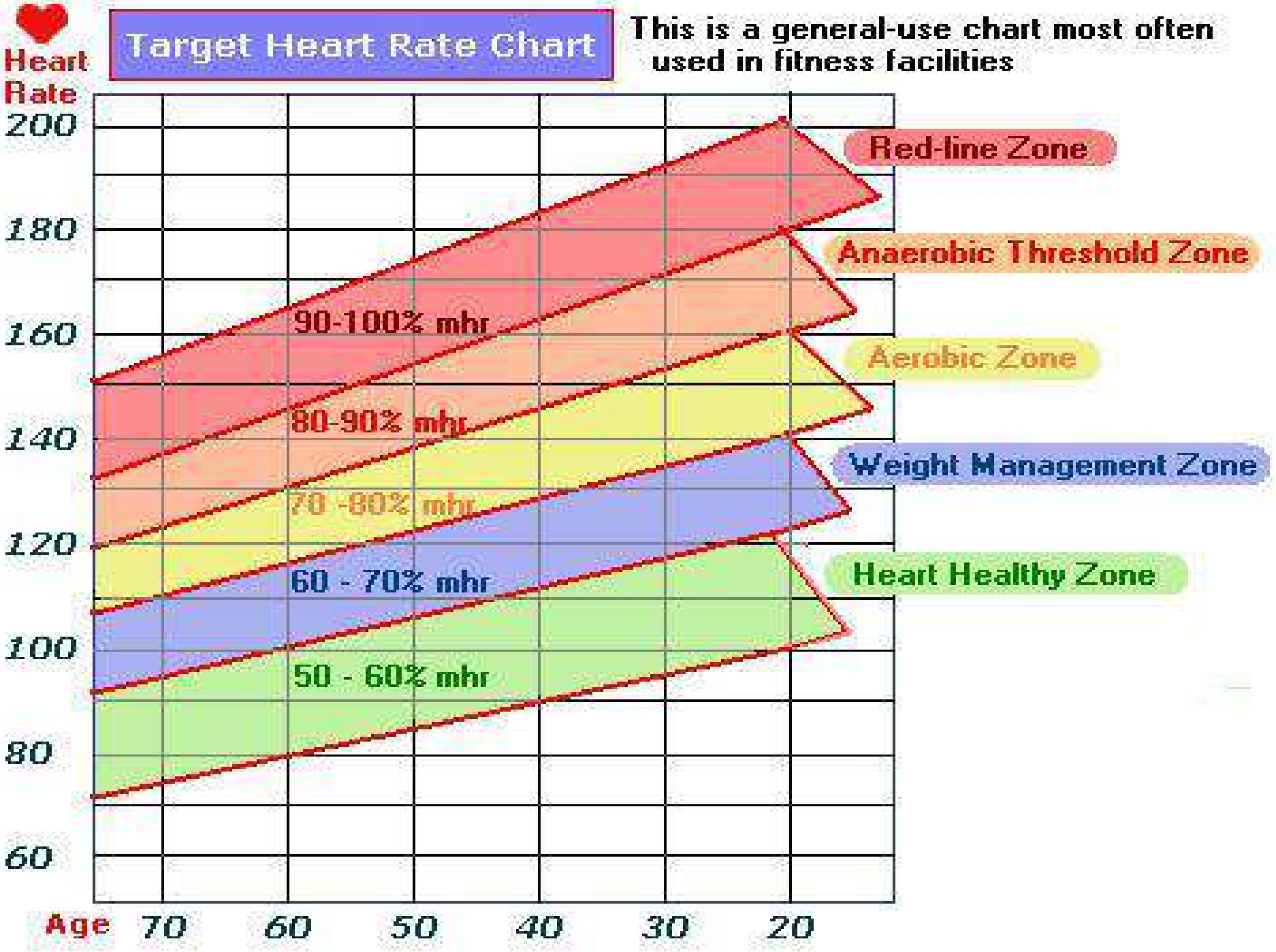



(117 × 0.6) + 63
= 70.2 + 63
= 133.2 → 133
lower limit



Target Heart Rate Chart

This is a general-use chart most often used in fitness facilities



T - TIME (HOW LONG TO EXERCISE)

- Exercise should be sustained for 30-60 minutes, for a minimum of 3 hours per week up to 5 hours per week.

For Overall Cardiovascular Health:

At least **30** minutes of *moderate-intensity* aerobic activity

At least **5** days *per week* for a total of **150** minutes

OR

At least **25** minutes of *vigorous* aerobic activity

At least **3** days *per week* for a total of **75** minutes

or a combination of the two

AND

Moderate to **HIGH INTENSITY** muscle-strengthening activity

At least **2** days *per week* for additional health benefits

For Lowering Blood Pressure and Cholesterol:

An average of **40** minutes of *moderate- to vigorous-intensity* aerobic activity

3 or **4** days *per week*

Learn more at **heart.org/ActivityRecommendations**.

T - TYPE (THE TYPE OF EXERCISE)

- Walking, jogging, aerobic dance, bicycling, swimming, rowing, cross-country skiing, etc.

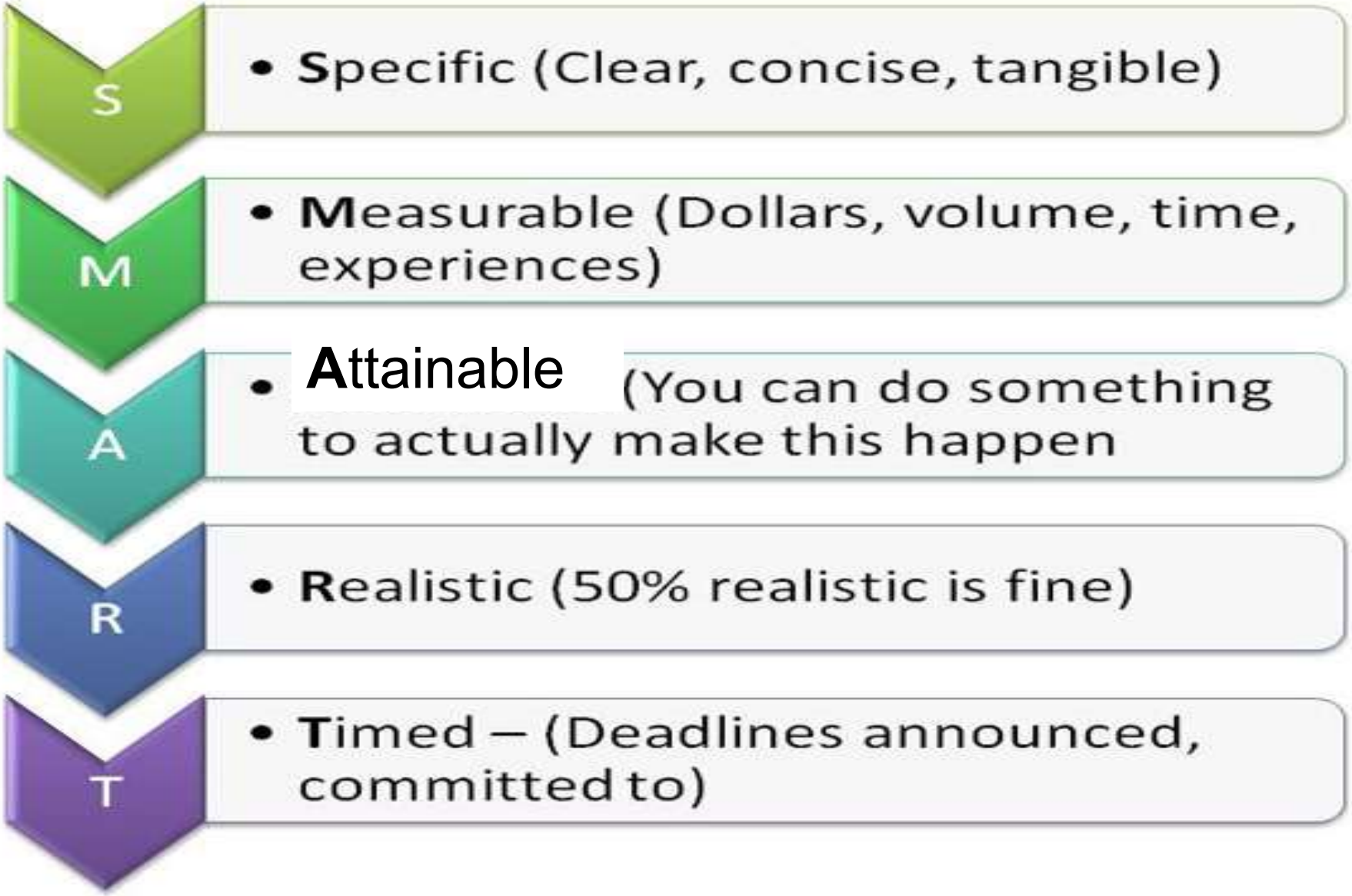
Task: Name at least 3

OFF DUTY

Aerobic/Anaerobic Exercises you can do

- Calisthenics:
  - Push-ups
  - Sit-up
  - Mountain Climbers
  - Squat Thrusts
  - Squat Thrust w/ push-up
  - Weighted Ball Exercises
- Jumping Rope
- Elastic Band Exercise
- Medicine Ball Workouts
- Boxing
  - Shadow Boxing
  - Bag Workouts
- Hiking
- Swimming
- Running
- Jogging
- Walking long distance
- Climbing Stairs

Designing Your Own Exercise Program



CHARACTERISTICS OF GOAL SETTING

1. ***Specific*** – Develop a written plan that includes enough detail to guide exactly where and when you will be active (e.g., " I will walk the dog for 30 minutes after work at 5:30 p.m., five times a week for two weeks.")
2. ***Measurable*** – measuring the activity will give you tangible evidence of your progress. Decide how you will measure your activity—number of steps/ amount of time spent in activity/exercise? (keep a written log)

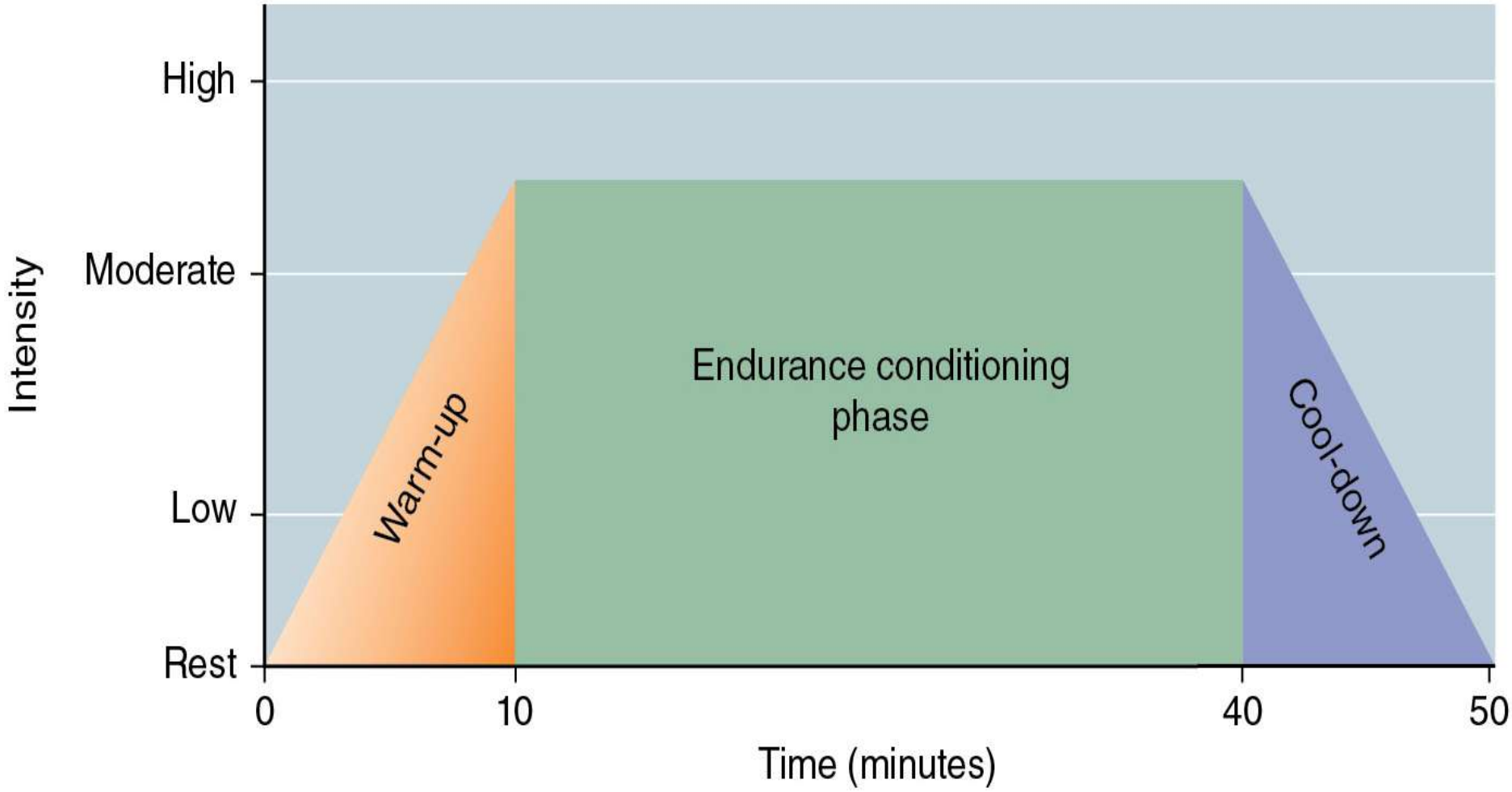
3. ***Attainable*** – Maximize your chances for success by examining your strengths and weaknesses and using this information when setting goals.

4. ***Realistic*** – Start small and include only what you can do. Know you limitations! Plan a few things, rather than many. As you achieve smaller or short-term goals you are working toward achieving larger or long-term goals.

5. ***Timely*** – Include when you plan to work on your goal and how long it will take to achieve it.

Recognition – Give yourself small reward for each successful step you have achieved towards meeting your goals. When you achieve your final fitness goal give yourself a large reward.

THE COMPONENTS OF AN



re 6.1 Overview of aerobic exercise session.

COMPONENTS OF AN EXERCISE SESSION:

A. WARM-UP

- 5-10 minutes of several range-of-motion exercises and slow aerobic activity designed to prepare the muscular and cardiovascular system for exercise.
- If you begin exercising too quickly, without warming up, you'll draw too heavily on your anaerobic system, a system that is relatively inefficient due to a lack of oxygen available for the working muscles. As a result, you increase the risk for angina and you'll fatigue quickly and build up a lot of lactic acid, which causes muscle cramps and pain.

STRETCHING:

•An effective method of stretching is by slowly stretching until resistance is encountered. Hold that position for 10 to 20 seconds, then relax. Each stretching exercise should be repeated until the muscle group feels flexible or limber.

- **Do not bounce or stretch to the point of feeling pain.**

Exercise Conditioning Session:

Aerobic Activity. 30-60 minutes consisting of continuous, rhythmic exercise performed at the target heart rate

Is the main component of the exercise session. It is during this part of the session that the intensity of the exercises increase to produce the training stimulus to tailor to the participant's specific training objectives.

- If the objective is to increase cardio-vascular endurance, the conditioning session may include circuit training, jogging, power-walking, swimming or cycling.
- If the objective is to increase muscular fitness, the session may focus on strength, weight training or calisthenics.

Cool Down

8-10 minutes of slower aerobic activity and stretching designed to allow the body to gradually return to its pre-exercise state and increase the body's flexibility.

If the body does not have enough time to "cool-down," it generates large amounts of lactic acid (the same problem outlined in "Warm-up"), which causes muscle soreness and pain.

This is the easiest area to cut short when "hurrying" from exercise to your next activity. It is very important to allow the body enough time to return to its pre-exercise state.

BENEFITS OF REGULAR STRENGTH TRAINING EXERCISE

- increased strength and flexibility of muscles, tendons and ligaments
- increased functional capacity
- increased lean tissue and metabolism
- increased bone density (which may help prevent bone loss)
- better balance and stability
- injury prevention
- increased self-confidence, improved self-image
- improved ability to perform occupational and
- leisure time activities
- improved exercise adherence (because of the diversity of exercises)

PATHWAYS TO SUCCESS WITH EXERCISE

Fulfill the 3 C's: Comprehension, Commitment and Confidence.

Comprehension - understand the reason why it is important for you to exercise on a regular basis by talking with a health care professional or by reading educational exercise materials. This will provide a strong base for your commitment.

Commitment - make a personal decision to place exercise as a priority in your day's activities. Make exercise a ritual. Write time for exercise in your appointment book — in ink.

Confidence - set small, reasonable goals. Reward and praise yourself when reaching the steps that will lead you to your ultimate objective. Don't let small setbacks sabotage your long-term success.

PHYSICAL ACTIVITY INTO DAILY LIVE

- The most efficient way to increase your physical activity is to make it part of your daily routines.

Instead of driving, walk or bicycle to work or to the store. If that's not practical, park a little farther away (where the parking places are usually easier to find, thereby also reducing your stress level).

- Take the stairs instead of an elevator, especially if you're going only one or two floors.

- If you use the moving sidewalks at airports, don't just stand there — walk!

- If you play golf, walk instead of using an electric cart.

- Exercise with family or friends to provide social support, for more motivation and a double benefit.

- On a vacation, walk rather than drive to see and experience the sights.

Why Fitness Test ?

The results of fitness tests can be used to :

- Identify strengths and weaknesses in performance.
- Compare against recognised standards
- Monitor progress
- Adapt training programs
- Place athletes in correct training groups
- Set targets / goals
- Identify talent
- Monitor progress following injury

PERSONAL FITNESS ASSESSMENTS

1. **Medical** - Includes medical history and screening; Cardio-Respiratory Test and:

Body Composition –

1. Measuring percentage of body fat.

Underwater weighing

Skin fold (Jackson & Pollock formulas)

Girth Circumference/ Anthropometric Measurement

2. Height- Weight NormsInsurance chart, body mass index (**BMI**)

3. Waist Circumference

PERSONAL FITNESS ASSESSMENTS

2. Self- initiative –

Flexibility-Sit and Reach

Muscular Strength-

a. Absolute Strength- 1 rep max bench press

b. Dynamic Strength- 1 minute bent leg sit up or curl up; 1 minute push-up

Anaerobic Endurance- 300 meter run; Vertical Jump

3.Tests - PPFT or physical fitness agility examination required by academies and law enforcement agencies.

LIFESTYLE HABITS THAT ARE THE LEADING CAUSES OF DEATH

1. Sedentary Living
2. Poor Nutrition
3. Obesity
4. Stress
5. Smoking
6. Substance Abuse

HEALTH AND WELLNESS

- Physical Fitness
- Nutrition
- Sleep
- Stress

NUTRITION

Eating a balanced diet that includes whole grains, vegetables and fruits can help maintain or reduce weight.

NUTRITION QUIZ

1. Larger portions tend to make us eat more.

True. We've grown used to eating portions way bigger than we need. Large portions, known as portion distortion is one of many reasons given for our increasing incidents of obesity.

NUTRITION QUIZ

2. The Body's fuel comes from Protein, Fat, and Carbohydrates?

- **True**. All 3 nutrients provide calories which is what your body uses for energy.

NUTRITION QUIZ

3. An average bakery bagel is 2 servings of grain foods.

False. Bagels have "exploded". The average bagel is now about 5 ounces and equal to about 5 servings of grain food.

NUTRITION QUIZ

4. When you are young, you can pretty much eat whatever you want.

False. Good nutrition and good health habits should start early. What you eat now can have some impact on your long term health.

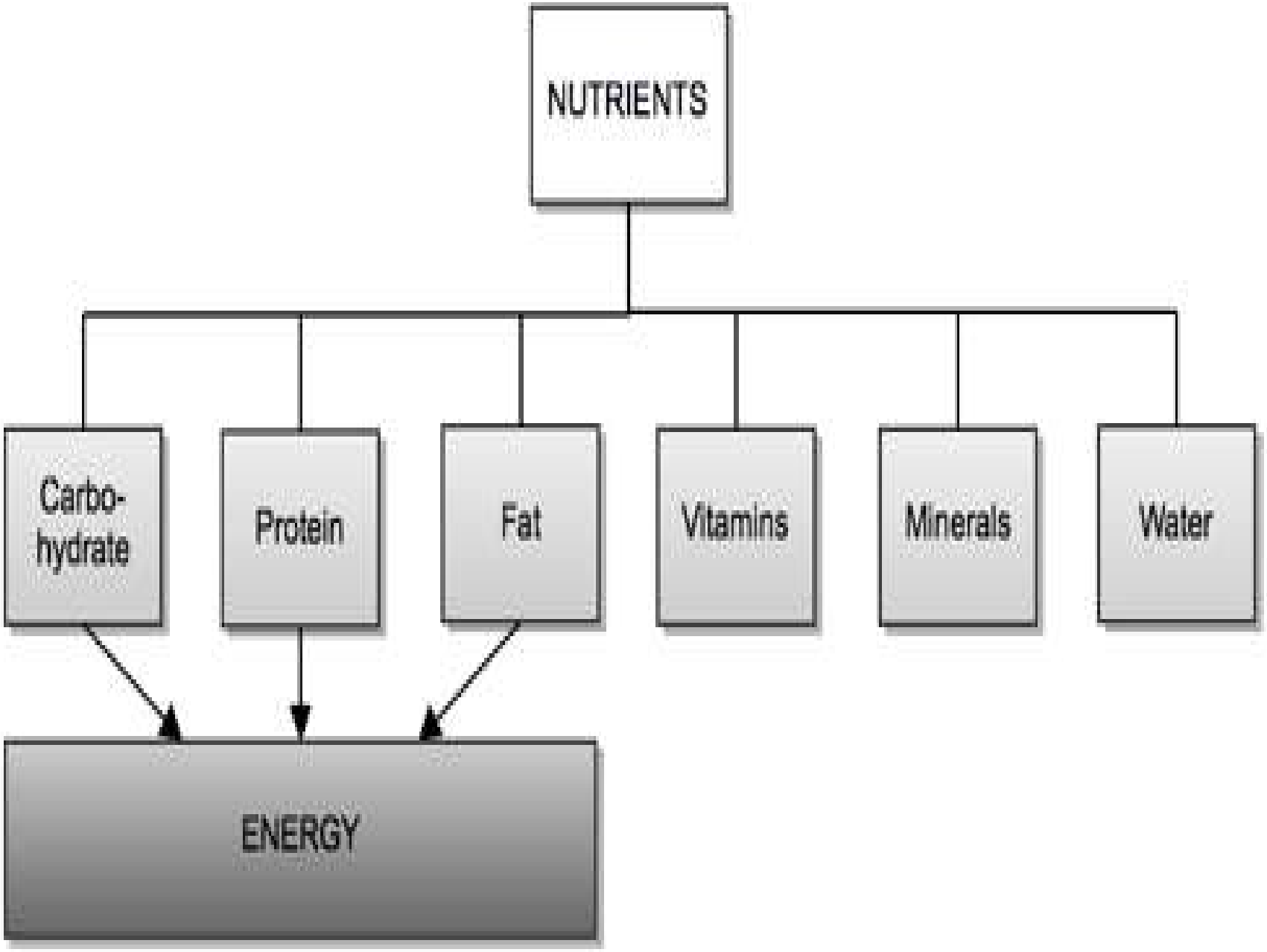
NUTRITION QUIZ

5. Eating breakfast can help control late night cravings.

True. Research suggests that breakfast eaters tend to weigh less and have better balance to their day. College students should try to eat real food instead of "junk" if they are up late.

THE IMPORTANCE OF NUTRIENTS

- Proper nutrition is of the utmost importance if you want to maintain good health.
- For this reason, the nutrients a person consumes on a regular basis have to be understood.
- Nutrients are chemical substances that are found in the food a person eats.
- There are many different nutrients and a large number of these nutrients are vital to the health and ultimately the life of each individual.
- Nutrients are responsible for a great number of things such as providing energy to the body as well as building and maintaining the various organs of the body.
- Nutrients are also an important part of many different metabolic processes that take place throughout the body.


NUTRIENTS
Carbo-hydrate
Protein
Fat
Vitamins
Minerals
Water
ENERGY

UNDERSTANDING ESSENTIAL NUTRIENTS

- **Carbohydrates**
  - Small units of sugars linked together
  - All provide 4 calories per gram
  - 2 Types
    - Simple (less sugars linked together)
      - Tastes sweet
    - Complex (more sugars linked together)
      - Starches found in bread, pasta, potatoes, cereals

PROTEINS

- Made up of building blocks or amino acids
- 11 amino acids body can produce
- 9 amino acids body can’t produce
- All provide 4 calories per gram

FATS

- Dietary fat is part of healthy diet
- Saturated and Unsaturated
- All provide 9 calories per gram

VITAMINS AND MINERALS

- Small

- Powerful nutrients

- Best obtained through food

- Do not provide calories for energy

- Fat and Water Soluble

ENERGY BALANCE

- Reducing calorie intake by 150 calories along with moderate exercise could double weight loss to:
  - 10 lbs in 6 months
  - 20 lbs in 1 year

BALANCING INTAKE

- 1 Sm chocolate chip cookie (50 calories) = 10 min briskly walking
- Large gourmet cookie vs. sm cookie = 40 min raking leaves
- 1 hr walking (20min/mile) = 1 jelly donut
- Fast food combo meal (double cheese, extra lg fries, 24 oz soft drink = running 2 1/2 hours at 10 min/mile pace

EATING TIPS

- ¾ Plate rule – Make grains, legumes, fruits and vegetables 75% of your meal. Make meat and dairy other 25%.
- Choose most brightly colored fruits & vegetables
- Eat fish or seafood once a week
- Drink more tea
- Chinese food-drain off extra sauce (most fat located here)

EATING TIPS

- Avoid drinking meal at coffee shop
  - Typical grande mocha = 400-600 calories
- Be wary of low-fat versions
  - Not always a big bargain
- Always drink lots of water
- Choose pizza wisely
  - Vegetable toppings
  - Less meat and cheese

EATING TIPS

- Eat slowly
- Ask for sauces, gravy, and salad dressing on the side
- Use low-calorie or fat free dressings
- Limit alcohol
- If portions large, take some home
- Avoid Jumbo, giant, deluxe, biggie, and super sized items

HEALTHY FAST FOOD

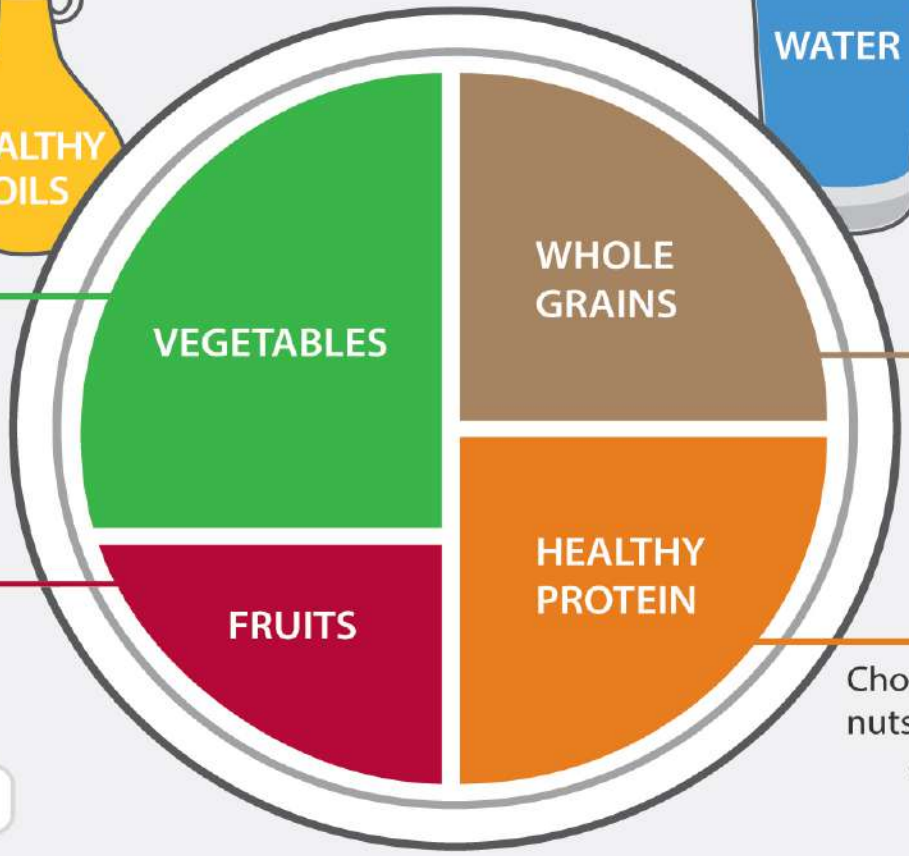
- Grilled chicken
- Grilled fish
- Whole wheat rolls
- Fruit
- Fruit and yogurt
- Baked potato
- Single hamburger
- Low fat deli sandwich on wheat bread or Pita bread
- Wraps on whole wheat
- Fat free milk
- Water
- Salad with dressing on side

UNHEALTHY CHOICES

- Chicken nuggets
- Croissant breakfast sandwiches
- Fried Fish
- Fried Chicken
- Large or Jumbo size fries
- Onion rings
- Double and triple patty burgers

HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.



Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

Eat plenty of fruits of all colors.

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

STAY ACTIVE!

Harvard School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
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4 Reasons To Drink More water...
MORE ENERGY
A major cause of fatigue and weakness is dehydration. Proper hydration helps maintain clear thinking and better concentration.
HEALTHY SKIN
Consuming enough water hydrates your skin, diminishes the appearance of wrinkles, and it flushes toxins out of your body!
WEIGHT LOSS
Staying hydrated ensures that your organs work optimally. This increases metabolism, allowing you to burn more fat. Plus water has no calories!
YOU NEED IT
Water allows nutrients & oxygen to travel to organs & cells. Water also regulates our body temperature, removes waste and protects joints & organs!

DRINKING WATER

at the correct time
mazimizes its efectiveness
on the human body

2 GLASSES AFTER WAKING UP
helps activate internal organs

1 GLASS 30 MINS BEFORE A MEAL
helps digestion

1 GLASS BEFORE TAKING A BATH
helps lower blood pressure

1 GLASS BEFORE GOING TO BED
avoid stroke & heart attack

Live life, Love life
- Yunny Versace

DIURETICS

- Drinks such as, coffee, alcohol, tea and caffeinated soft drinks are considered to to be diuretics and will cause you to excrete body fluid when you drink them.

HEALTH AND WELLNESS

- Physical Fitness
- Nutrition
- **Stress**
- Sleep

STRESS

- Chronic stress can have an adverse impact on both blood pressure and blood lipid value leading to increased risk of Coronary Heart Disease (CHD). Individuals with type H (hostility) personality and/ or clinical depression are especially vulnerable to CHD.

STRESS

- **Goal**: Not to eliminate stress from your life, but to learn how to manage it and how to use it to your advantage.
  - Find the optimal level of stress which will MOTIVATE you, but not OVERWHELM you

MANAGING STRESS

- **Become aware of your stressors and your emotional and physical reactions**
  - Notice your stress (Don't ignore it)
  - Determine what events distress you
  - Determine how your body responds to the stress.

MANAGING STRESS

- **Recognize what you can change**
  - Can you change/avoid/eliminate stressors?
  - Can you reduce their intensity?
  - Can you shorten exposure to stressors?
    (Take a break, leave the physical premises)
  - Can you devote time and energy to make changes?
    (Goal setting, time management)

MANAGING STRESS

- **Learn to moderate your physical reactions to stress**
  - Slow, deep breathing will bring HR and breathing back to normal
  - Relaxation techniques can reduce muscle tension
    - Biofeedback
    - Music
    - Yoga
    - Progressive Muscular Relaxation

SMOKING

- Smoking has increased in many countries outside the United States, such as third world countries like China and Russia, where the tobacco companies are sending billions of free cigarettes to get people "hooked".
- Smoking is directly responsible for more than 4,000,000 deaths per year worldwide.
- Smoking damages the endothelial lining of the arterial walls, which is the fist step to plaque formation.
- Smoking increases the tendency for blood clot formation and decreased HDL cholesterol levels.
- Smoking is a major risk factor for CHD, stroke, peripheral vascular disease, many types of cancer and chronic obstructive pulmonary disease (emphysema and bronchitis).

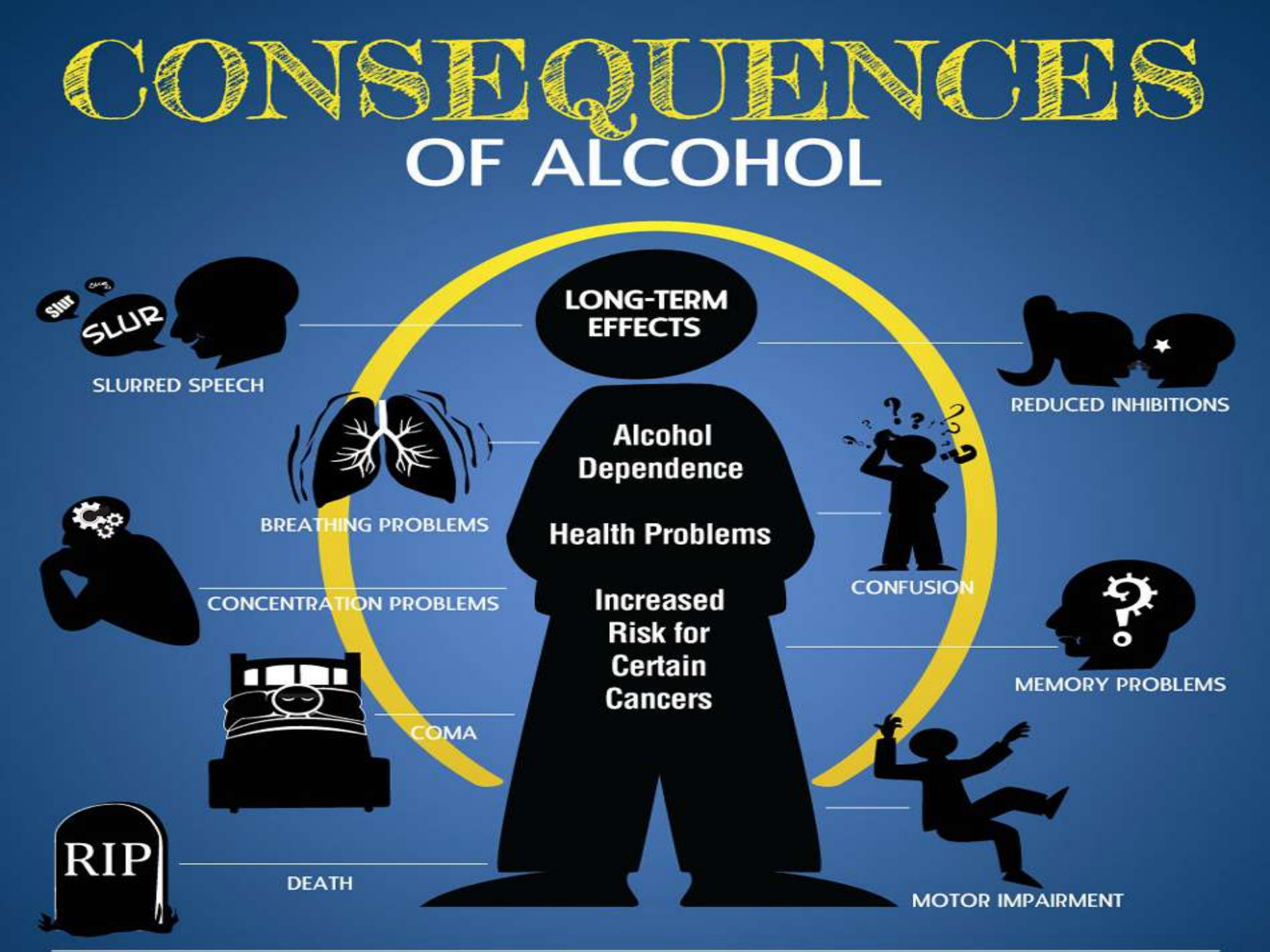
Substance Abuse

- Refers to the use of substances when said use is causing detriment to the individual's physical health or causes the user legal, social, financial or other problems including endangering their lives or the lives of others.
- Substance abuse is not specific to illegal substances but people can also abuse legal substances which are bought or prescribed.
- Substance abuse is an old fashioned term for which the term problematic substance use is now more widely used.

ALCOHOL

- Misuse and abuse continues to be problem
- Supplies calories but few nutrients
- Effects can be devastating:
  - Adverse health consequences
    - Liver Damage, plus others
  - Domestic abuse
  - Drinking and Driving
  - Flunking out of school

CONSEQUENCES OF ALCOHOL



Long Term-

- Heavy use for prolonged periods of time can lead to:
  - Addiction
  - Brain damage
  - Liver damage/ failure or cirrhosis
  - Cancer
  - Cardiac disease
  - Skin diseases
  - Gastritis
  - Sexual dysfunction
  - Irreversible neurological and psychological health conditions.

HEALTH AND WELLNESS

- Physical Fitness
- Nutrition
- Stress
- **Sleep**

SLEEP FACTS

- As group, 18 to 24 yr olds suffer more from impaired performance due to lack of sleep
- Require between 8 and 10 hours of sleep a night
- Fatigue involved in 1 of 6 fatal road accidents
- Insufficient sleep can cause hormone linked to obesity

TIPS TO IMPROVE SLEEP

- Avoid stress 2-3 hours before sleeping
- Exercise – finish 30-60 before sleeping
- Stick to a ritual
- Make room dark, cool, and quiet
- Be careful with caffeine drinks
- Quit smoking
- Take a nap if sleep deprived

VITAMINS

- ✓The body only requires very small amounts of vitamins.
- ✓The small amounts are very essential for normal functioning.
- ✓Vitamins help the body release energy from foods, promote muscle and tissue growth.
- ✓The correct amount of vitamins the body requires maybe obtained through good food sources or a one a day multi-vitamin.

VITAMINS

A	Helps fight infections & aids vision	Carrots, Sweet Potatoes, Liver, Butter or Margarine
B	8 different B vitamins. (3) very important are thiamin, riboflavin & niacin	Whole grains, nuts, milk, yogurt, fish, poultry, cheese, lean pork
C	Maintains healthy bones & teeth, cells & Reduces stress.	Citrus fruits, juices, dark green vegetables
D	Helps growth & formation of bones,teeth & help absorb calcium.	Fortified milk, liver, tuna. Eggs
E	Guard red cells & helps the metabolism of free fatty acids	Grains, green leaf vegetables, saturated fats, vegetable oils
K	Help blood clotting	Liver, wheat bran, peas, soybean oil & Potatoes

IMPORTANT MINERALS & SOURCES

- Minerals are inorganic molecules that serve a variety of functions within the body.
- Macro minerals that appear in the body in large quantities are: calcium, phosphorus, potassium, sulfur, sodium, chloride, and magnesium.
- Micro minerals are found in the body in smaller quantities but they are essential for the body to function.

MAJOR MINERAL SOURCES

Mineral	Body needs	Sources
Calcium	Bone, teeth, blood clotting, nerves, muscles	Milk, sardines, dark green vegetables, nuts
Chloride	Nerves, muscle functions, water balance	Table salt
Magnesium	Bone growth; nerves, muscle & enzyme function	Nuts, seafood, whole grain, leafy green vegetables
Phosphorus	Bone, Teeth, energy transfer	Meat, poultry, seafood, eggs, milk, beans
Potassium	Nerve, muscle function	Fresh vegetables, bananas, citrus fruits, milk, meats, fish
Sodium	Nerve, muscle function, water balance	Table salt

TRACE MINERAL SOURCES

Chromium	Glucose metabolism	Meats, liver, whole grains & dried beans
Copper	Enzyme function, energy production	Meats, seafood, nut, & grains
Fluoride	Bone & teeth growth	Drinking water, fish & milk
Iodine	Thyroid hormone formation	Iodized salt & seafood
Iron	O2 transport red blood cells & enzyme function	Red meat, liver, eggs, beans, leafy vegetable & shellfish
Manganese	Enzyme function	Whole grains, nuts, fruits & vegetables
Molybdenum	Energy metabolism in cells	Whole grains, organ meats, peas & beans
Selenium	Works with vitamin E	Meat, fish, whole grains & eggs
Zinc	Part of enzyme growth	Meat, shellfish, yeast & whole grain

Eat **Less**

salt

solid & trans fats

fast food

saturated fats

added sugars

refined grains

Eat **More**

fruits & vegetables

healthy oils

lean protein

seafood

lowfat dairy

whole grains

POSITIVE EFFECTS OF PHYSICAL FITNESS AND PROPER NUTRITION

- Reduces the risk of premature death
- Reduces the risk of developing and /or dying from heart disease.
- Reduces high blood pressure or the risk of developing high cholesterol
- Reduces the risk of developing diabetes
- Reduces or maintains your body weight or body fat.

- Builds and maintains healthy muscles, bones and joints
- Reduces depression and anxiety
- Improves psychological well-being
- Enhances work, recreation and sport performance.
- Reduces fatigue
- Helps you relax and sleep better
- Enjoy your family
- Live healthier and longer
- Live longer to enjoy you retirement
- Look and feel better

"The **KEY** to
Health & Wellness is to
accept
Personal Responsibility
for your
HEALTH & WELLBEING"

Questions?